DEP'S RQT
IFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: Confirmation No.: 2444

Ram Gopal Lakshmi NARAYANAN Art Unit: 2157

Application No.: 10/646,900 Examiner: A.E. SALAD

Filed: August 25, 2003 Attorney Dkt. No.: 060282.00099

For: APPARATUS AND METHOD FOR SECURITY MANAGEMENT IN WIRELESS IP NETWORKS

PETITION TO WITHDRAW NOTICE OF IMPROPER REQUEST FOR CONTINUED EXAMINATION (RCE)

MAILSTOP: PETITION
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

February 20, 2008

Sir:

Applicants respectfully request that the Notice of Improper Request for Continued Examination (RCE) which was recently mailed on February 14, 2008, be withdrawn and the previously pending Request for Continued Examination be reinstated.

The Examiner issued a Final Office Action on November 17, 2007, finally rejecting claims 1-18 of the above-referenced application. Applicants timely filed a proper Response under 37 CFR § 1.116 on January 8, 2008, including amendments. An Advisory Action was issued on January 28, 2008. The Advisory Action indicated that the amendments filed on January 8, 2008, had not been entered or considered. After receiving an Advisory Action, Applicants timely filed a proper Request for Continued Examination (RCE) Transmittal on February 12, 2008. In the Request for Continued Examination (RCE) Transmittal, Applicants requested that the previous Response, filed on January 8, 2008, be considered as the required Submission under 37 CFR § 1.114. On

February 14, 2008, Applicants received a Notice of Improper Request for Continued Examination (RCE) alleging that the Request for Continued Examination (RCE), filed on February 12, 2008, was improper because the request was not accompanied by a submission as required by 37 CFR § 1.114.

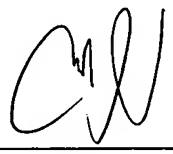
The Request for Continued Examination (RCE), filed on February 12, 2008, was proper. As indicated above, the Request for Continued Examination (RCE) Transmittal was accompanied by a submission, namely the previously filed Response, filed on January 8, 2008. Thus, Applicant's Request for Continued Examination (RCE) was properly accompanied by a submission, and thus, was proper under 37 CFR § 1.114.

This Petition, a copy of the Response, a copy of the Request for Continued Examination (RCE) Transmittal, an Additional Claim Fee Transmittal, a copy of the check, and a postcard receipt date stamped by the Patent and Trademark Office to acknowledge receipt of said response on said date, and the appropriate fees are submitted herewith so as to withdraw the Notice of Improper Request for Continued Examination (RCE). Accordingly, Applicants respectfully request that the Request for Continued Examination (RCE) be reinstated and that Applicants' amendments after final be entered and considered.

In summary, it is respectfully submitted that the Notice of Improper Request for Continued Examination (RCE) is not legally justified, and consequently improper. As a result, withdrawal of the Notice of Improper Request for Continued Examination (RCE), and prompt favorable action on the merits are respectfully requested.

Enclosed is a check in the amount of Four Hundred Dollars ($400.00) to cover the cost of the petition. In the event that this check is found to be insufficient, or if any additional feels are due with respect to the filing of this paper, please charge Counsel's Deposit Account Number 50-2222 referencing Attorney Docket No. 060282.00099

Respectfully submitted,



Majid S. AlBassam
Registration No. 54,749

Customer Number 32294
SQUIRE, SANDERS & DEMPSEY LLP
8000 Towers Crescent Drive, 14th Floor
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800
Fax: 703-720-7802

KMM:ksh

Enclosures: Copy of Notice of Improper Request for Continued Examination (RCE);
Petition and Request for Refund
Copy of Response as Filed on January 8, 2008;
Copy of Request for Continued Examination (RCE) Transmittal as Filed on February 12, 2008;
Copy of the Additional Claim Fee Transmittal as filed on January 8, 2008;
Copy of Check No. 17861; and
Copy of Postcard Date-Stamped January 8, 2008
Check No. 18179

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:	Confirmation No. 2444
Ram Gopal Lakshmi NARAYANAN	Art Unit: 2157
Application No.: 10/646,900	Examiner: A.E. SALAD
Filed: August 25, 2003	Attorney Dkt. No.: 060282.00099

For: APPARATUS AND METHOD FOR SECURITY MANAGEMENT IN WIRELESS IP NETWORKS

PETITION AND REQUEST FOR REFUND

MAILSTOP: PETITION
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

February 20, 2008

Sir:

Applicant petitions the Commissioner to issue a refund for filing a Petition to withdraw a Notice of Improper Request for Continued Examination (RCE), which was mailed on February 14, 2008.

As indicated in Applicants' Petition for Withdrawal of Notice of Improper Request for Continued Examination (RCE), the Examiner issued a Final Office Action on November 17, 2007, finally rejecting claims 1-18 of the above-referenced application. Applicants timely filed a proper Response under 37 CFR § 1.116 on January 8, 2008, including amendments. An Advisory Action was issued on January 28, 2008. The Advisory Action indicated that the amendments filed on January 8, 2008, had not been entered or considered. After receiving an Advisory Action, Applicants timely filed a proper Request for Continued Examination (RCE) Transmittal on February 12, 2008. In the Request for Continued Examination (RCE)

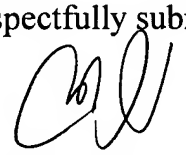
Transmittal, Applicants requested that the previous Response, filed on January 8, 2008, be considered as the required Submission under 37 CFR § 1.114. On February 14, 2008, Applicants received a Notice of Improper Request for Continued Examination (RCE) alleging that the Request for Continued Examination (RCE), filed on February 12, 2008, was improper because the request was not accompanied by a submission as required by 37 CFR § 1.114.

However, Applicants' Request for Continued Examination (RCE) Transmittal was proper. As indicated in Applicants' Petition for Withdrawal of Notice of Improper Request for Continued Examination (RCE), the Request for Continued Examination (RCE) Transmittal was accompanied by a submission, namely the previously filed Response, filed on January 8, 2008. Thus, Applicant's Request for Continued Examination (RCE) was properly accompanied by a submission, and thus, was proper under 37 CFR § 1.114. Nevertheless, Applicant was required to file a Petition for Withdrawal of Notice of Improper Request for Continued Examination (RCE), and the required fee of Four Hundred Dollars ($400.00).

In view of the facts discussed, it is respectfully requested that the USPTO refund the full cost of the Petition for Withdrawal of Notice of Improper Request for Continued Examination (RCE) ($400.00).

It is respectfully requested that the refund be credited to Counsel's Deposit Account No. 50-2222. A duplicate copy of this sheet is enclosed herewith.

Respectfully submitted,



Majid S. AlBassam
Attorney for Applicant
Reg. No. 54,749

Customer Number 32294
SQUIRE, SANDERS & DEMPSEY LLP
8000 Towers Crescent Drive, 14th Floor
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800
Fax: 703-720-7802

KMM

Enclosures: Petition to Withdraw Notice of Improper Request for Continued Examination (RCE);
Copy of Notice of Improper Request for Continued Examination (RCE);
Copy of Response as Filed on January 8, 2008;
Copy of Request for Continued Examination (RCE) Transmittal as Filed on February 12, 2008;
Copy of the Additional Claim Fee Transmittal as filed on January 8, 2008;
Copy of Check No. 17861; and
Copy of Postcard Date-Stamped January 8, 2008
Check No. 18179

(27) Kmm KMM

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

32294 e 02/14/2008

SQUIRE, SANDERS & DEMPSEY L.L.P.
14TH FLOOR
8000 TOWERS CRESCENT
TYSONS CORNER, VA 22182

Paper No.

Application No.:	**10/646,900**	**Date Mailed:**	**02/14/2008**
First Named Inventor:	Narayanan, Ram Gopal, Lakshmi	Examiner:	SALAD, ABDULLAHI ELMI
Attorney Docket No.:	60282-00099	Art Unit:	2157
Confirmation No.:	2444	Filing Date:	08/25/2003

Please find attached an Office communication concerning this application or proceeding.

Commissioner for Patents

PTO-90c (Rev.08-06)

NOTICE OF IMPROPER REQUEST FOR CONTINUED EXAMINATION (RCE)	Application No. 10/646,920	Applicant(s) NARAYANAN, RAM GOPAL LAKSHMI	
		Art Unit 2100	Date Mailed:

The request for continued examination (RCE) under 37 CFR 1.114 filed on 12 February, 2008 is improper for reason(s) indicated below:

1. ☐ Continued examination under 37 CFR 1.114 does not apply to an application for a design patent. Applicant may wish to consider filing a continuing application under 37 CFR 1.53(b) or a CPA under 37 CFR 1.53(d). An RCE cannot be treated as a CPA.

2. ☐ Continued examination under 37 CFR 1.114 does not apply to an application that was filed before June 8, 1995. Applicant may wish to consider filing a continuing application under 37 CFR 1.53(b).

3. ☐ Continued examination under 37 CFR 1.114 does not apply to an application unless prosecution in the application is closed. If the RCE was accompanied by a reply to a non-final Office action, the reply will be entered and considered under 37 CFR 1.111. If the RCE was not accompanied by a reply, the time period set forth in the last Office action continues to run from the mailing date of that action.

4. ☐ The request was not filed before payment of the issue fee, and no petition under 37 CFR 1.313 was granted. If this application has not yet issued as a patent, applicant may wish to consider filing either a petition under 37 CFR 1.313 to withdraw this application from issue, or a continuing application under 37 CFR 1.53(b).

5. ☐ The request was not filed before abandonment of the application. The application was abandoned, or proceedings terminated on _____. Applicant may wish to consider filing a petition under 37 CFR 1.137 to revive this abandoned application.

6. ☐ The request was not accompanied by the fee set forth in 37 CFR 1.17(e) as required by 37 CFR 1.114. Since the application is not under appeal, the time period set forth in the final Office action or notice of allowance continues to run from the mailing date of that action or notice.

7. ☒ The request was not accompanied by a submission as required by 37 CFR 1.114. Since theapplication is not under appeal, the time period set forth in the final Office action or notice of allowance continues to run from the mailing date of that action or notice.

Note: A continued prosecution application (CPA) under 37 CFR 1.53(d) cannot be filed in a utility or plant application. A CPA filed in a utility or plant application that has a filing date **on or after June 8, 1995** will be treated as an RCE under 37 CFR 1.114. The request for a CPA in the instant application, however, has been treated as an improper RCE for the reason(s) indicated above.

A copy of this Notice MUST be returned with the reply.

Direct any questions concerning this notice to

/KELLY D. HARRIS/, Technology Center 2100

Telephone Number: (571)272-2582

PTO/SB/30 (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

REQUEST FOR CONTINUED EXAMINATION (RCE) TRANSMITTAL

Subsection (b) of 35 U.S.C. § 132, effective on May 29, 2000, provides for continued examination of an utility or plant application filed on or after June 8, 1995. See The American Inventors Protection Act of 1999 (AIPA).

Application Number	10/646,900
Filing Date	August 25, 2003
First Named Inventor	Ram Gopal Lakshmi NARAYANAN
Group Art Unit	2157
Examiner Name	A.E. SALAD
Attorney Docket Number	060282.00099

This is a Request for Continued Examination (RCE) under 37 C.F.R. § 1.114 of the above-identified application.

NOTE: 37 C.F.R. § 1.114 is effective on May 29, 2000. If the above-identified application was filed prior to May 29, 2000, applicant may wish to consider filing a continued prosecution application (CPA) under 37 C.F.R. § 1.53(d) (PTO/SB/29) instead of a RCE to be eligible for the patent term adjustment provisions of the AIPA. See Changes to application Examination and Provisions Application Practice, Fine Rule, 65 *Fed. Reg.* 50092 (Aug. 16, 2000); Interim Rule, *65 Fed. Reg.* 14865 (Mar. 20, 2000), 1233 *Off. Gaz. Pat. Office 47* (Apr. 11, 2000), which established RCE practice.

1. Submission required under 37 C.F.R. § 1.114
   - a. ☒ Previously submitted
     - i. ☒ Consider the amendment(s)/reply under 37 C.F.R. § 1.116 previously filed on **January 8, 2008** (Any unentered amendment(s) referred to above will be entered).
     - ii. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on ____
     - iii. ☐ Other ____
   - b. ☐ Enclosed
     - i. ☐ Amendment/Reply
     - ii. ☐ Affidavit(s)/Declaration(s)
     - iii. ☐ Information Disclosure Statement (IDS)
     - iv. ☐ Other
2. Miscellaneous
   - a. ☐ Suspension of action on the above-identified application is requested under 37 C.F.R. § 1.103(c) for a period of ____ months. (Period of suspension shall not exceed 3 months; Fee under 37 C.F.R. § 1.17(i) required)
   - b. ☐ Other ____
3. Fees — The RCE fee under 37 C.F.R. § 1.17(e) is required by 37 C.F.R. § 1.114 when the RCE is filed.
   - a. ☒ The Director is hereby authorized to charge the following fees or credit any overpayments to Deposit Account No. 50-2222
     - i. ☐ RCE fee required under 37 C.F.R. § 1.17(e)
     - ii. ☐ Extension of time fee (37 C.F.R. §§ 1.136 and 1.17)
     - iii. ☐ Other ____
   - b. ☒ Check in the amount of $ **810.00; Check No. 18127** Enclosed

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Name (Print/Type)	Majid S. AlBassam	SIGNATURE ON ORIGINAL	*Registration No. (Attorney/Agent)*	54,749	
Signature			*Date*	February 12, 2008	

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner For Patents, Box RCE, Washington, DC 20231, or facsimile transmitted to the U.S. Patent and Trademark Office on:

Name (Print/Type)			
Signature		*Date*	

MAIL STOP AF
Patent ☒ Trademark ☐ Docket No. **060282.00099**

Serial No. **10/646,900** Filed **August 25, 2003**

Applicant(s) **Ram Gopal Lakshmi NARAYANAN**

Papers filed herewith on **January 8, 2008**

☒ Fees $ **$420.00 (No. 17861)**	☐ Assignment w/ PTO-1595
☐ New Application (Pages)	☐ Declaration
☒ **Response/Amendment (17 Pages)**	☐ Priority Document ( )
☐ Notice of Appeal	☐ **Req. for Ext. of Time (months)**
☐ IDS/PTO-1449 (Refs.)	☐ Drawings **(Formals - sheets)**
☒ Other Additional Claim Fee Transmittal	

Receipt is hereby acknowledged of the papers filed as indicated in connection with the above-identified case.

COMMISSIONER OF PATENTS

KMM:ksh **Due Date: February 14, 2008**

SQUIRE SANDERS | LEGAL COUNSEL WORLDWIDE

PTO ACCOUNT
TYSONS CORNER, VA 22182

Check Number

Date January 8, 2008

Amount **********$420.00

PAY: **Four Hundred Twenty Dollars and 00 Cents**********

To the order of:

Payee: Commissioner of Patents and Trademarks **Check #** 17861
Vendor ID: 57741 **Check Date:** 8-Jan-08

Invoice #	Invoice Date	Reference	Invoice Amount	Discount Taken	Payment Amount
TY17861	01/08/08		$420.00	$0.00	$420.00
			$0.00	$0.00	$0.00
			$0.00	$0.00	$0.00
			$0.00	$0.00	$0.00
			$0.00	$0.00	$0.00
			$0.00	$0.00	$0.00

TMKPR #	Disb Date	Disb ID	Disbursement Description	Client	Matter	Amount
09782	1/8/08	569	KMM/1-8/ADDITIONAL CLAIMS	060282	00099	$420.00
						$0.00
						$0.00
						$0.00
						$0.00
						$0.00
					CHECK TOTAL:	**$420.00**

Case Docket No. 060282.00099

Date January 8, 2008

In re the Application of:

Ram Gopal Lakshmi NARAYANAN

Application No.: 10/646,900

Filed: August 25, 2003

Confirmation No.: 2444

Art Unit: 2157

Examiner: A.E. SALAD

Attorney Dkt. No.: 060282.00099

For: APPARATUS AND METHOD FOR SECURITY MANAGEMENT IN WIRELESS IP NETWORKS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is an Amendment in the above-identified application.

☐ Small entity status of this application under 37 CFR 1.9 and 1.27 has been established by a statement previously submitted.

☐ Applicant qualifies for small entity status.

☐ No additional fee is required.

The fee has been calculated as shown below:

					SMALL ENTITY			OTHER THAN A SMALL ENTITY	
	(Col. 1)		(Col. 2)	(Col. 3)					
[redacted]	CLAIMS REMAINING AFTER AMENDMENT	[redacted]	HIGHEST NO. PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDIT. FEE		RATE	ADDIT. FEE
TOTAL	20	MINUS	20		X25=		or	X50=	
INDEP.	7	MINUS	5	2	X105=		or	X210=	420
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					+185=		or	+370=	
					TOTAL		or		420

☒ Enclosed is a check in the amount of **Four Hundred Twenty Dollars** ($420.00). Except as otherwise noted herein, the Commissioner is hereby authorized to charge payment of any other fees that may be required to complete this filing, or to credit any overpayment, to Counsel's Deposit Account No. 50-2222.

☐ The Commissioner is hereby authorized to charge payment for the following fees associated with this communication or credit any overpayment to Counsel's Deposit Account No. 50-2222. A duplicate copy is enclosed.

☒ Any filing fees required under 37 CFR 1.16.

Respectfully submitted,

SIGNATURE ON ORIGINAL

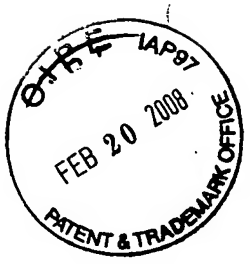
Majid S. AlBassam
Attorney for Applicant
Registration No. 54,749

Atty. Docket No. 060282.00099

Customer Number 32294
SQUIRE, SANDERS & DEMPSEY LLP
14TH Floor
8000 Towers Crescent Drive
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800
Fax: 703-720-7802

KMM:ksh

Enclosures: Amendment
Check No. 17861



EXPEDITED PROCEDURE
EXAMINING GROUP 2157
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:	Confirmation No.: 2444
Ram Gopal Lakshmi NARAYANAN	Art Unit: 2157
Application No.: 10/646,900	Examiner: A.E. SALAD
Filed: August 25, 2003	Attorney Dkt. No.: 060282.00099

For: APPARATUS AND METHOD FOR SECURITY MANAGEMENT IN WIRELESS IP NETWORKS

RESPONSE UNDER 37 CFR § 1.116

MAIL STOP AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

January 8, 2008

Sir:

In response to the Office Action dated November 14, 2007, please amend the above-identified application as set forth below.

Amendments to the claims are submitted beginning on page 2.

Remarks are submitted beginning on page 8.

IN THE CLAIMS:

Please amend claims 1-8, 11, and 16-18 as follows. Please add new claims 19-20 as follows.

1. (Currently Amended) ~~A distributed routing device~~ An apparatus comprising:

a ~~routing unit~~ router configured to route subscriber traffic flow between at least two wireless access networks and an ~~IP~~ internet protocol network~~,~~, wherein the at least two wireless access networks correspond to different customer networks; and

a ~~generating unit~~ generator configured to generate at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.

2. (Currently Amended) The ~~distributed routing device~~ apparatus according to claim 1, wherein at least one logical part of the security instance is associated with a context of a respective one of the wireless access networks and comprises an interface with the respective wireless access network.

3. (Currently Amended) The ~~distributed routing device~~ apparatus according to claim 1, further comprising an ~~associating unit~~ associating device configured to associate the subscribers with the at least two wireless access networks.

4. (Currently Amended) The ~~distributed routing device~~ apparatus according to claim 1, further comprising a ~~reorganizing unit~~ reorganizer configured to reorganize a context from a first logical part of the security instance associated with a first wireless access network of the at least two wireless access networks to a second logical part of the

security instance associated with a second wireless access network of the at least two wireless access networks.

5. (Currently Amended) The ~~distributed routing device~~ apparatus according to claim 4, wherein the ~~reorganizing unit~~ reorganizer is configured to reorganize the context from the first logical part to the second logical part in case of a handover of a subscriber from the first wireless access network to the second wireless access network.

6. (Currently Amended) The ~~distributed routing device~~ apparatus according to claim 1, wherein the security function comprises at least one of a ~~Virtual Private Network~~ virtual private network, routing and firewall function.

7. (Currently Amended) The ~~distributed routing device~~ apparatus according to claim 1, wherein the ~~distributed routing device~~ apparatus is located at a provider edge of the ~~IP~~ internet protocol network.

8. (Currently Amended) A method ~~for routing subscriber traffic flow in a distributed routing device between at least two wireless access networks and an IP network, the method~~ comprising:

providing at least one instance ~~for executing~~ to execute a security function on ~~the~~ subscriber traffic flow routed between at least two wireless access networks and an IP network, wherein the at least two wireless access networks correspond to different customer networks, by logically separating the at least one instance for at least two wireless access networks, so that physically one security instance for subscribers of the at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.

9. (Previously Presented) The method according to claim 8, further comprising:

associating at least one logical part of the security instance with a context of a respective one of the wireless access networks; and

providing an interface between the at least one logical part and the respective associated wireless access networks.

10. (Previously Presented) The method according to claim 9, further comprising:

modifying the context in the at least one logical part by the associated wireless access network via the respective interface.

11. (Currently Amended) The method according to claim 10, further comprising:

detecting whether the context to be modified comprises a security code; and

in case the context comprises the security code, inhibiting the ~~step of~~ modifying of the context.

12. (Previously Presented) The method according to claim 8, further comprising:

associating the subscribers with the wireless access networks.

13. (Previously Presented) The method according to claim 8, further comprising:

reorganizing a context from a first logical part of the security instance associated with a first wireless access network of the at least two wireless access networks to a second logical part of the security instance associated with a second wireless access network of the at least two wireless access networks.

14. (Previously Presented) The method according to claim 13, wherein the reorganizing comprises reorganizing the context from the first logical part to the second logical part in case of a handover of a subscriber from the first wireless access network to the second wireless access network.

15. (Previously Presented) The method according to claim 14, wherein the reorganizing comprises reorganizing a handover context pertaining to the subscriber handed over from the first wireless access network to the second wireless access network.

16. (Currently Amended) A network node ~~in a wireless access network for routing subscriber traffic flow to and from an IP network, the network node~~ comprising:

a connection ~~for connecting~~ which connects a network node to a distributed routing device ~~for routing~~ configured to route subscriber traffic flow to and from an ~~IP~~ internet protocol network, wherein the distributed routing device is configured to route subscriber traffic flow between at least two wireless access networks and an ~~IP~~ internet protocol network, wherein the at least two wireless access networks correspond to different customer networks, and the distributed routing device comprises at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance, wherein at least one logical part of the security instance is associated with a context of a respective one of the wireless access networks and comprises an interface with the respective wireless access network; and

~~the network node comprises modifying means for modifying~~ a modifying device configured to modify the context in the at least one logical part of the security instance associated with the respective one of the wireless access network via a respectively provided interface.

17. (Currently Amended) A network system comprising:

at least two wireless access networks and a distributed routing device ~~for routing~~ configured to route subscriber traffic flow between the at least two wireless access networks and an ~~IP~~ internet protocol network, wherein the at least two wireless access networks correspond to different customer networks, wherein the distributed routing

device is configured to route subscriber traffic flow between at least two wireless access networks and an ~~IP~~ internet protocol network, and the distributed routing device comprises at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.

18. (Currently Amended) An apparatus, comprising:

routing means for routing subscriber traffic flow between at least two wireless access networks and an ~~IP~~ internet protocol network~~,~~, wherein the at least two wireless access networks correspond to different customer networks; and

generating means for generating at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.

19. (New) A network node comprising:

connection means for connecting a network node to distributed routing means for routing subscriber traffic flow to and from an internet protocol network, wherein the distributed routing means routes subscriber traffic flow between at least two wireless access networks and an internet protocol network, wherein the at least two wireless access networks correspond to different customer networks, and the distributed routing device comprises at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance, wherein at least one logical part of the security instance is associated with a context of a respective one of the wireless access networks and comprises an interface with the respective wireless access network; and

modifying means for modifying the context in the at least one logical part of the security instance associated with the respective one of the wireless access network via a respectively provided interface.

20. (New) A network system comprising:

at least two wireless access networks and distributed routing means for routing subscriber traffic flow between the at least two wireless access networks and an internet protocol network, wherein the distributed routing means routes subscriber traffic flow between at least two wireless access networks and an internet protocol network, wherein the at least two wireless access networks correspond to different customer networks, and the distributed routing means comprises at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.

REMARKS

The Office Action dated November 24, 2007 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-8, 11, and 16-18 have been amended to more particularly point out and distinctly claim the subject matter of the invention. New claims 19-20 have been added. No new matter has been added and no new issues are raised which require further consideration or search. Therefore, claims 1-20 are currently pending in the application and are respectfully submitted for consideration.

The Office Action rejected claims 1-18 under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication No. 2004/0215957 ("Moineau"). The rejection is respectfully traversed for at least the following reasons.

Claim 1, upon which claims 2-7 are dependent, recites an apparatus, which includes a router configured to route subscriber traffic flow between at least two wireless access networks and an internet protocol network. The at least two wireless access networks correspond to different customer networks. The apparatus further includes a generator configured to generate at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.

Claim 8, upon which claim 9-15 are dependent, recites a method, which includes providing at least one instance to execute a security function on subscriber traffic flow routed between at least two wireless access networks and an IP network, where the at least two wireless access networks correspond to different customer networks, by logically separating the at least one instance for at least two wireless access networks, so that physically one security instance for subscribers of the at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.

Claim 16 recites a network node which includes a connection which connects a network node to a distributed routing device configured to route subscriber traffic flow to and from an internet protocol network. The distributed routing device is configured to route subscriber traffic flow between at least two wireless access networks and an internet protocol network. The at least two wireless access networks correspond to different customer networks. The distributed routing device comprises at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance. The at least one logical part of the security instance is associated with a context of a respective one of the wireless access networks and comprises an interface with the respective wireless access network. The network node further includes a modifying device configured to modify the context in the at least one logical part of the

security instance associated with the respective one of the wireless access network via a respectively provided interface.

Claim 17 recites a network system, which includes at least two wireless access networks and a distributed routing device configured to route subscriber traffic flow between the at least two wireless access networks and an internet protocol network. The at least two wireless access networks correspond to different customer networks. The distributed routing device is configured to route subscriber traffic flow between at least two wireless access networks and an internet protocol network. The distributed routing device includes at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.

Claim 18 recites an apparatus, which includes routing means for routing subscriber traffic flow between at least two wireless access networks and an internet protocol network. The at least two wireless access networks correspond to different customer networks. The apparatus further includes generating means for generating at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.

Claim 19 recites a network node, which includes connection means for connecting a network node to distributed routing means for routing subscriber traffic flow to and from an internet protocol network. The distributed routing means routes subscriber traffic flow between at least two wireless access networks and an internet protocol network. The at least two wireless access networks correspond to different customer networks. The distributed routing device comprises at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance. At least one logical part of the security instance is associated with a context of a respective one of the wireless access networks and comprises an interface with the respective wireless access network. The network node further includes modifying means for modifying the context in the at least one logical part of the security instance associated with the respective one of the wireless access network via a respectively provided interface.

Claim 20 recites a network system, which includes at least two wireless access networks and distributed routing means for routing subscriber traffic flow between the at least two wireless access networks and an internet protocol network. The distributed routing means routes subscriber traffic flow between at least two wireless access networks and an internet protocol network. The at least two wireless access networks correspond to different customer networks. The distributed routing means comprises at least one instance for executing a security function on a subscriber traffic flow, so that

physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.

Therefore, according to embodiments of the invention, latency is reduced, the handover mechanism is improved, and transferring entire contexts across autonomous systems are avoided. An architecture is provided for virtual firewalls and virtual security gateways, a framework and mechanism for firewall and security context transfer, and a policy governance model to accommodate rules and manage the mobile node preferences based on a roaming agreement. According to embodiments of the invention, the functions of firewall, security gateway and home agent are moved to the provider that provides instances of such functions for each customer. This facilitates the process of conducting context transfer and also eliminates a protocol between these instances for IPSec and firewall context transfer. Private peering and public peering are enabled to support context transfer at the provider edge which enables policy control and is more secure.

As will be discussed below, Moineau fails to disclose or suggest all of the elements of the claims, and therefore fails to provide the advantages and features discussed above.

Moineau generally discloses an apparatus which allows a secure connection of a user client station to a base unit. The secure connection comprises the use of authentication and encryption means. Moineau further discloses that the base unit

comprises a switching unit, at least one firewall, an authentication/encryption unit, and at least one port device. Moineau further discloses a secure roaming scheme when a roaming is performed by a wireless user. (See Moineau at Abstract.)

Moineau further discloses a base unit 26 which comprises a firewall system 10, a router 12, a VPN server 14, a WLAN port 20 and a LAN 18. Figure 1 shows two mobile units 22 and 24 connected to a base unit 26, via a WLAN port 20. Alternatively, mobile unit 22 can be connected to a first base unit 26, and mobile unit 24 can be connected to a second base unit 26 (not shown in Figure 1). The LAN internal port 18 allows the connection of a base unit 26 to at least one other base unit 26 (not shown in Figure 1) and more generally to a LAN. Furthermore, a mobile unit user can roam from one base unit 26 to another base unit (not shown in Figure 1). Moineau further discloses that each base unit 26 is located on a same subnet in order to facilitate roaming, or a base unit 26 and a radius authentication server is separated by a WAN. (See Moineau at paragraphs 0030-0038; see also Figure 1).

Furthermore, Moineau discloses that a mobile unit can communicate with another mobile unit 24 via the WLAN port 20, the firewall system 10, and the router 12. Moineau further discloses that a mobile unit 22 can communicate with a computer located in an outer LAN or WAN. Alternatively, mobile unit 22 can communicate with another user 24 connected to a WLAN access point of another base unit 26 connected to the base unit 26 where the mobile unit 22 is, via the LAN internal port 18. Thus, Moineau discloses two forms of communication between mobile unit 22 and 24: (1)

communication when mobile units 22 and 24 are both connected to a first base station 26; and (2) when mobile unit 22 is connected to a first base station 26 and mobile unit 24 is connected to a second base station 26. (See Moineau at paragraphs 0030- 0044; see also Figure 1).

Applicants respectfully submit that Moineau fails to disclose, teach, or suggest, all of the elements of the present claims. For example, Moineau fails to disclose, teach, or suggest, at least, "a router configured to route subscriber traffic flow between at least two wireless access networks and an internet protocol network, wherein the at least two wireless access networks correspond to different customer networks," as recited in claim 1, and similarly recited in claims 8, and 16-20.

The Office Action stated in the "Response" section that Applicants' arguments from the Response, filed on August 20, 2007 ("Previous Response"), are not persuasive because "the features upon which applicant relies (i.e., routing subscriber traffic between wireless access networks and an IP network, wherein the wireless access networks correspond to different customer networks) are not recited in the rejected claims(s)." Applicants respectfully submit that claims 1, 8, and 16-18 have been amended to recite (and new claims 19 and 20 do recite) "wherein the wireless access networks correspond to different customer networks." Therefore, the arguments from the Previous Response are incorporated herein.

Furthermore, Moineau fails to disclose or suggest two wireless access networks, let alone two wireless access networks which correspond to different customer networks.

As described above, Moineau discloses two WLAN clients 22 and 24, and discloses that the WLAN clients are either connected to the same base unit, or connected to two different base units. However, Moineau discloses that the two base stations are part of the same subnet, and thus, part of the same wireless access network. (see Moineau at 0038 and 0049). Moineau fails to disclose or suggest that the two base units are each a base unit of a different wireless access network, and fails to disclose or suggest that the WLAN clients are each a client of a different wireless access network. Furthermore, Moineau fails to disclose or suggest that each base unit (and thus, each WLAN client) is associated with a different customer network, as Moineau fails to disclose or suggest the nature of the network, beyond the fact that the network is a wireless access network. Therefore, Moineau fails to disclose or suggest different customer networks, as claimed in the present invention.

Thus, Moineau fails to disclose, teach, or suggest, at least, "a router configured to route subscriber traffic flow between at least two wireless access networks and an internet protocol network, wherein the at least two wireless access networks correspond to different customer networks," as recited in claim 1, and similarly recited in claims 8, and 16-20.

Therefore, for at least the reasons discussed above, Moineau fails to disclose, teach, or suggest, all of the elements of claims 1, 8, and 16-20. For the reasons stated above, Applicants respectfully request that this rejection be withdrawn.

Claims 2-7 depend upon claim 1. Claims 9-15 depend upon claim 8. Thus, Applicants respectfully submit that claims 2-7 and 9-15 should be allowed for at least their dependence upon claims 1, and 8, and for the specific limitations recited therein.

For at least the reasons discussed above, Applicants respectfully submit that the cited prior art references fails to disclose or suggest all of the elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 1-20 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

SIGNATURE
ON ORIGINAL

Majid S. AlBassam
Registration No. 54,749

Customer No. 32294
SQUIRE, SANDERS & DEMPSEY LLP
14TH Floor
8000 Towers Crescent Drive
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800
Fax: 703-720-7802

KMM:ksh

Enclosures: Additional Claim Fee Transmittal
Check No. 17861